

Information about procedure

The procedure for testing is:

- Client sends e-mail with name of the product and the test conditions: standard, concentration, contact time, interfering substance, temperature or for hand disinfectant and standards EN 1499, EN 1500 and EN 12791: volume and time.
- We send e-mail with the price offer.
- Client sends the products with MSDS and the order with the test conditions to the laboratory by DHL or TNT.
- After receiving the samples we send e-mail with test conditions for the confirmation.
- After receiving confirmation we send the advance invoice.
- After receiving the payment we send the invoice – VAT document by post and start the tests according to the testing plan.
- After finishing the tests we send the draft test report with results by e-mail for confirmation.
- After receiving confirmation we send original test report by post

The time from receiving the sample and/or new request for testing to sending draft test report with results is min. 2-3 months now.

Information about period of analysis

Period of analysis:

- Bactericidal activity – 2 days
- Fungicidal activity – 3-7 days
- Sporicidal – 3-7 days
- Virucidal activity about 10 days/virus
- Mycobactericidal and tuberculocidal activity – 21-40 days
- Hygienic handwash – 2 days
- Hygienic handrub – 2 days
- Surgical hand disinfection test – immediate effect – 2 x 10 days
- Surgical hand disinfection test – sustained effect – 2 x 10 days

Total time of analysis depends on declared activity which you want to test and the number of the products which are received before your product.

Information about product and documentation

We need the product (min. amount 2 x 0,5 l or 2 x 0,5 kg, one sample-two packages) and the order with specific data: name of the product, batch number, date of manufacture, expiry date, manufacturer, storage conditions, active compounds and concentrations, label for use, safety data sheet, biocidal activity and the testing conditions: concentration, contact time, interfering substances, temperature, or volume of product, total time of application and frequency of application (hand disinfectants).

Information about concentrations

According to the standard Product test solutions shall be prepared in hard water at minimum three different concentrations to include one concentration in the active range and one concentration in the non-active range.

Information about repetition

According to the standard The number of replicate tests shall be decided according to the required level of precision, taking into account the intended use of the test results. Repetition means the complete test procedure with separately prepared test - and validation suspensions. The repetitions may be restricted to the limiting test organism.

Information about GLP

We can perform the tests under accreditation principles only, or under accreditation principles and GLP principles together. For GLP we need to know an easy methods for confirmation of the product (the active compounds and their concentrations, certificate of analysis and methods for parameters which are on CoA).

Information about payment

Our policy of payment:

We send the advance invoice (proforma faktura) after receiving the sample and confirmation of the test conditions, after receiving the payment we send the invoice (VAT-document) and perform the determination of the biocidal activity, after finishing of the tests we send draft test report by e-mail, after checking we send the test reports by post.

Basic test – bactericidal activity

Bactericidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 1040 obligatory test conditions	Pseudomonas aeruginosa	5 min	water	20 °C	≥ 5 lg
	Staphylococcus aureus				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 15 min, 30 min or 60 min		4 °C, 10 °C, 40 °C	

Basic test – fungicidal activity

Fungicidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 1275 obligatory test conditions	Candida albicans	15 min	water	20 °C	≥ 4 lg
	Aspergillus brasiliensis (niger)				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 5 min, 30 min or 60 min		4 °C, 10 °C, 40 °C	

fungicidal activity - Candida albicans, Aspergillus brasiliensis (niger)

yeastcidal activity - Candida albicans

Basic test – sporicidal activity

Sporicidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14347 obligatory test conditions	Bacillus subtilis	30 min, 60 min or 120 min	water	20 °C	≥ 4 lg
	Bacillus cereus				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	may be tested		may be tested	

Medical area – bactericidal activity

Bactericidal activity

Standard	Purpose	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 13727 + A2	hygienic handrub and handwash (concentration for handwash 50%(62.5%))	Pseudomonas aeruginosa	between 30 s and 60 s	clean (handrub)	20 °C	≥ 5 lg (handrub)
		Staphylococcus aureus				
		Enterococcus hirae		dirty (handwash)		≥ 3 lg (handwash)
		Escherichia coli K 12				
	surgical handrub and handwash (concentration for handwash 50%(62.5%))	Pseudomonas aeruginosa	between 1 min and 5 min	clean (handrub)	20 °C	≥ 5 lg (handrub)
		Staphylococcus aureus				
		Enterococcus hirae		dirty (handwash)		≥ 5 lg (handwash)
		Escherichia coli K 12				
	Instrument disinfection	Pseudomonas aeruginosa	no longer than 60 min	clean and/or dirty	between 20 °C and 70 °C	≥ 5 lg
		Staphylococcus aureus				
		Enterococcus hirae			when is temperature 40 °C or higher Enterococcus faecium only	
		Enterococcus faecium				
Surface disinfection	Pseudomonas aeruginosa	no longer than 5 min or 60 min	clean and/or dirty	between 4 °C and 30 °C	≥ 5 lg	
	Staphylococcus aureus					
	Enterococcus hirae					

Bactericidal activity on carriers

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14561 obligatory test conditions	Pseudomonas aeruginosa	60 min	clean and/or dirty	20 °C	≥ 5 lg
	Staphylococcus aureus				
	Enterococcus hirae				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	5 min, 15 min, 30 min		may be tested	

Hygienic handwash

Standard	Strain	Volunteers	Contact time	Temperature	Expression
EN 1499	Escherichia coli K 12	12 - 15	between 30 s and 60 s	room temperature	log reduction factors of the product are significantly higher
Reference item: soft soap from linseed oil 200 g/l, 5 ml, 60 s					

Hygienic handrub

Standard	Strain	Volunteers	Contact time	Temperature	Expression
EN 1500	Escherichia coli K 12	18 - 22	between 30 s and 60 s	room temperature	product is non-inferior to reference item
Reference item: 60% 2- propanol, 2 x 3 ml, 2 x 30 s					

Surgical hand disinfection

Standard	Volunteers	Contact time	Effect	Temperature	Expression
EN 12791	23 - 28	between 60 s and 5 min	immediate effect	room temperature	product is non-inferior to reference item
			sustained - 3 h effect		
Reference item: 60% 1- propanol, 2 x 3 ml, 2 x 1.5 min					

Bactericidal activity on non-porous surfaces

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 16615	Pseudomonas aeruginosa	no longer than 60 min	clean and/or dirty	between 4 °C and 30 °C	≥ 5 lg
	Staphylococcus aureus				
	Enterococcus hirae				

Medical area – fungicidal activity

Fungicidal activity

Standard	Purpose	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 13624	hygienic handrub and handwash (concentration for handwash 50%(62.5%))	Candida albicans	between 30 s and 60 s	clean (handrub) dirty (handwash)	20 °C	≥ 4 lg (handrub) ≥ 2 lg (handwash)
	surgical handrub and handwash (concentration for handwash 50%(62.5%))	Candida albicans	between 1 min and 5 min	clean (handrub) dirty (handwash)	20 °C	≥ 4 lg (handrub) ≥ 4 lg (handwash)
	Instrument disinfection	Candida albicans	no longer than 60 min	clean and/or dirty	between 20 °C and 70 °C	≥ 4 lg
		Aspergillus brasiliensis (niger)				
Surface disinfection	Candida albicans	no longer than 5 min or 60 min	clean and/or dirty	between 4 °C and 30 °C	≥ 4 lg	
	Aspergillus brasiliensis (niger)					

Fungicidal activity on carriers

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14562 obligatory test conditions	Candida albicans	60 min	clean and/or dirty	20 °C	≥ 4 lg
	Aspergillus brasiliensis (niger)				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	5 min, 15 min, 30 min		may be tested	

Yeasticidal activity on non-porous surfaces

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 16615	Candida albicans	no longer than 60 min	clean and/or dirty	between 4 °C and 30 °C	≥ 4 lg

Medical area – mycobactericidal and tuberculocidal activity

Mycobactericidal and tuberculocidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14348 obligatory test conditions	Mycobacterium terrae	60 min	clean and/or dirty	20 °C	≥ 4 lg
	Mycobacterium avium				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	5 min, 15 min, 30 min		may be tested	

mycobactericidal activity – Mycobacterium terrae, Mycobacterium avium

tuberculocidal activity – Mycobacterium terrae

Mycobactericidal and tuberculocidal activity on carriers

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14563 obligatory test conditions	Mycobacterium terrae	60 min	clean and/or dirty	20 °C	≥ 4 lg
	Mycobacterium avium				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	5 min, 15 min, 30 min		may be tested	

mycobactericidal activity – Mycobacterium terrae, Mycobacterium avium

tuberculocidal activity – Mycobacterium terrae

Medical area – virucidal activity

Virucidal activity

Standard	Purpose	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14476+A1	hygienic handrub and handwash (concentration for handwash 50%(62.5%))	Adenovirus	between 30 s and 120 s	clean (handrub)	20 °C	≥ 4 lg
		Murine norovirus		dirty (handwash)		
		Poliovirus				
	Instrument disinfection	Adenovirus	no longer than 60 min	clean and/or dirty	between 20 °C and 70 °C	≥ 4 lg
		Murine norovirus				
		Poliovirus			when is temperature 40 °C or higher only Parvovirus	
		Parvovirus				
	Surface disinfection	Adenovirus	no longer than 5 min or 60 min	clean and/or dirty	between 4 °C and 30 °C	≥ 4 lg
		Murine norovirus				
		Poliovirus				
	Textile disinfection	Parvovirus	no longer than 20 min	dirty	between 30 °C and 70 °C	≥ 4 lg

Virucidal activity – limited spectrum virucidal activity

Standard	Purpose	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14476+A1	hygienic handrub and handwash (concentration for handwash 50%(62.5%))	Adenovirus	between 30 s and 120 s	clean (handrub)	20 °C	≥ 4 lg
		Murine norovirus		dirty (handwash)		

Virucidal activity – virucidal activity against enveloped viruses

Standard	Purpose	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14476+A1	hygienic handrub and handwash (concentration for handwash 50%(62.5%))	Vacciniavirus	between 30 s and 120 s	clean (handrub) dirty (handwash)	20 °C	≥ 4 lg

Food, industrial, domestic and institutional area – bactericidal activity

Bactericidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 1276 obligatory test conditions	Escherichia coli	5 min (1 min for hand disinfection)	clean and/or dirty	20 °C	≥ 5 lg
	Pseudomonas aeruginosa				
	Staphylococcus aureus				
	Enterococcus hirae				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 15 min, 30 min, 60 min		between 4 °C, 10 °C and 40 °C	

Bactericidal activity on carriers

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 13697 obligatory test conditions	Escherichia coli	5 min	clean and/or dirty	18 °C – 25 °C	≥ 4 lg
	Pseudomonas aeruginosa				
	Staphylococcus aureus				
	Enterococcus hirae				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 15 min, 30 min, 60 min		between 4 °C, 10 °C and 40 °C	

Hygienic handwash

Standard	Strain	Volunteers	Contact time	Temperature	Expression
EN 1499	Escherichia coli K 12	12 - 15	between 30 s and 60 s	room temperature	log reduction factors of the product are significantly higher
Reference item: soft soap from linseed oil 200 g/l, 5 ml, 60 s					

Bactericidal activity against Legionella

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 13623	Legionella pneumophila	60 min for rapid acting product /15 h for slow acting product	yeast extract	20 °C general purpose 30 °C obligatory for cooling water	
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	2 h, 6 h, 15 h, 40 h, 48 h		may be tested	

Food, industrial, domestic and institutional area – fungicidal activity

Fungicidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 1650+A1 obligatory test conditions	Candida albicans	15 min	clean and/or dirty	20 °C	≥ 4 lg
	Aspergillus brasiliensis (niger)				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 5 min, 30 min, 60 min		between 4 °C, 10 °C and 40 °C	

Fungicidal activity on carriers

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 13697 fungicidal	Candida albicans	15 min	clean and/or dirty	18 °C – 25 °C	≥ 3 lg
	Aspergillus brasiliensis (niger)				
EN 13697 yeasticidal	Candida albicans	15 min	clean and/or dirty	18 °C – 25 °C	≥ 3 lg
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 5 min, 30 min, 60 min		between 4 °C, 10 °C and 40 °C	

Food, industrial, domestic and institutional area – sporicidal activity

Sporicidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 13704	Bacillus subtilis	60 min	clean	20 °C	≥ 3 lg
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	5 min, 15 min, 30 min		4 °C, 10 °C and 40 °C, 75 °C	

Food, industrial, domestic and institutional area – virucidal activity

Virucidal activity against bacteriophages

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 13610	Bacteriophage P001	15 min	1% acidic whey and/or 1% skim milk	20 °C	≥ 4 lg
	Bacteriophage P008				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	5 min, 30 min, 60 min		4 °C, 10 °C and 40 °C	

Veterinary area – bactericidal activity

Bactericidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 1656 general disinfection	Proteus vulgaris	30 min	low level and/or high level soiling	10 °C	≥ 5 lg
	Pseudomonas aeruginosa				
	Staphylococcus aureus				
	Enterococcus hirae				
EN 1656 teat disinfectants	Escherichia coli	5 min	milk 10 g/l	30 °C	≥ 5 lg
	Staphylococcus aureus				
	Streptococcus uberis				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 5 min, 60 min		between 4 °C, 20 °C and 40 °C	

Bactericidal activity on non-porous surfaces

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14349	Proteus vulgaris	30 min	low level and/or high level soiling	10 °C	≥ 4 lg
	Pseudomonas aeruginosa				
	Staphylococcus aureus				
	Enterococcus hirae				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 5 min, 60 min		between 4 °C, 20 °C and 40 °C	

Bactericidal activity on porous surfaces

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 16437	Proteus vulgaris	60 min	low level soiling	10 °C	≥ 4 lg
	Pseudomonas aeruginosa				
	Staphylococcus aureus				
	Enterococcus hirae				
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 5 min, 15 min, 30 min, 120 min		between 4 °C, 20 °C and 40 °C	

Veterinary area – fungicidal activity

Fungicidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 1657 fungicidal	Candida albicans	30 min	low level and/or high level soiling	10 °C	≥ 4 lg
	Aspergillus brasiliensis (niger)				
EN 1657 yeasticidal	Candida albicans	30 min	low level and/or high level soiling	10 °C	≥ 4 lg
EN 1657 teat disinfectants	Candida albicans	5 min post milking 30 s pre-milking	milk 10 g/l	30 °C	≥ 4 lg
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	5 min, 60 min, 120 min 1 min teat d.		between 4 °C, 20 °C and 40 °C	

Fungicidal activity on non-porous surfaces

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 16438 fungicidal	Candida albicans	60 min	low level and/or high level soiling	10 °C	≥ 3 lg
	Aspergillus brasiliensis (niger)				
EN 16438 yeasticidal	Candida albicans	60 min	low level and/or high level soiling	10 °C	≥ 3 lg
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	5 min, 30 min, 120 min		4 °C, 20 °C and 40 °C	

Veterinary area – mycobactericidal activity

Mycobactericidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14204	Mycobacterium avium	60 min	low level and/or high level soiling	10 °C	≥ 4 lg
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 5 min, 10 min, 15 min, 30 min, 120 min		between 4 °C, 20 °C and 40 °C	

Veterinary area – virucidal activity

Virucidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14675					
EN 14675	ECBO	30 min	low level and/or high level soiling	10 °C	≥ 4 lg
Additional test conditions	Additional strain	Additional contact time		Additional temperature	
	may be tested	1 min, 5 min, 60 min		between 4 °C, 20 °C and 40 °C	

Chemical-thermal textile disinfection

Chemical-thermal disinfection

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 16616					
bacteria	Pseudomonas aeruginosa		12,5 ml sheep blood per kg of textile	< 60 °C	≥ 7 lg
	Staphylococcus aureus				
	Enterococcus hirae				
	Escherichia coli K 12				
	Enterococcus faecium EN 13727, EN 16616				
fungi	Candida albicans			< 60 °C	≥ 6 lg
	Aspergillus brasiliensis (niger)				≥ 6 lg
	Aspergillus brasiliensis (niger) EN 13624			> 60 °C	≥ 6 lg
mycobacteria	Mycobacterium terrae			< 60 °C	≥ 7 lg
	Mycobacterium avium				
	Mycobacterium avium EN 14348			> 60 °C	≥ 7 lg

Virucidal activity – textile disinfection

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
EN 14476+A1					
EN 14476+A1 Textile disinfection	Parvovirus	no longer than 20 min	dirty	between 30 °C and 70 °C	≥ 4 lg

Algicidal activity

Algicidal activity

Standard	Strain	Contact time	Interfering substance	Temperature	Reduction
ČSN EN ISO 8692, TNV 75 7741	<i>Parachlorella kessleri</i>	5 days	-	30 °C ± 2 °C	min. 50%